

## TRICOPHYTOSIS \*

Three patients in one family (case reports).

By EDWARD D. LOVEJOY, M. D., Los Angeles

Trichophytosis or epidermophytosis, as we name the infection produced by one variety of the tinea fungus, is now easily recognized, and many cases previously diagnosed eczema are now found to belong to this group.

The reason for the present paper is to report a familial outbreak of the infection, for while we all see many cases, reports of the infection spreading through a family are of much rarer occurrence. According to Dr. White the sources of infection are: "The use of dirty, sweat-soaked, ill-kept athletic clothes and the intimate contact with clothing of animal origin." This has been frequently demonstrated, and as regards foot infection we might add coco mats and the floors of lockers and dressing rooms. One factor which undoubtedly plays a large part in the spread of the infection is the condition of the skin, skin softened by hot water, sweat and friction, with the consequent removal of the horny layer, being much more susceptible. This is proved by the common locations of the disease, the interdigital spaces, the axilla and groin, the hands, which are kept dryer and exposed to the air being less frequently attacked. According to recent work done by Dr. Greenwood, the fungi shows on cultivation two forms, the vegetative and the spore formation, the former being the growth found in scrapings and dried vesicles taken from the lesions. The cultures are grown at room temperature, but with considerable difficulty, and identification of the various genera cannot be made from the mycelial threads alone, so while we diagnose certain tinea lesions as due to the epidermophyton inguinale the diagnosis is based on clinical appearance rather than cultural growth.

Considering these facts the question arises, what form of the fungus resides in infected material? All objects so far recognized as the retaining host are dry at least part of the time, which fact would lead to the conclusion that we would find a spore form, and that a retaining host must exist is sufficiently proven by the histories of the cases.

The first patient seen was the mother, Mrs. W., referred to by Dr. Howard Morrow; family history and general examination unimportant.

The disease was present on both hands, the lesions occurring between the fingers, covering about half the proximal phalanx, but much worse on the palms where infiltration and fissuring rendered them quite painful, and interfered with her housework. This had been present about one year, no marked lessening of the outbreak having occurred, probably on account of the irritation kept up by her work. The fungus was found in the older border vesicles.

The daughter had contracted the infection at about the same time. The lesions covered a smaller area, being practically confined to the fingers. The

interdigital spaces between the second and third, and third and fourth fingers were involved in the right hand—one only on the left, but the tips of the second and third fingers of both hands were deeply fissured and painful, closely resembling an eczema. There was a mild hyperidrosis of the hands. Fungus was present.

The son gave a history of infection of both feet and hands of five years' duration contracted while he was away from home. Said he had had a good deal of treatment which did no good, and came in the office on account of an attack of pityriasis rosea. The epidermophytosis he looked upon as incurable, and except for occasional itching it gave him but little inconvenience. Examination showed lesions between two toes on the right foot, skin white, slightly sodden, itching little or none; both hands involved between the fingers and extending slightly onto the backs, skin dry, scaling, slightly more itching than on feet. Several slides were examined before the fungus could be found.

Here, undoubtedly, we have two cases infected from a third, and as far as can be shown by the histories a roller towel was the retaining host. This towel was, however, used by all members of the family, and yet the father and other daughter at no time showed any lesions. All three cases responded readily to treatment, and after a period of fifteen months for the first two and eight months for the third have not recurred.

These cases, as well as the isolated ones, open up a field for further cultural study and examination of possible infected material, with the object of ascertaining in what form the epidermophyton is retained in clothing, towels, etc., and also if there are other sources of infection at present unknown, but until this has been discovered the best we can do is to treat the cases as they occur.

In the cases of tinea circinata we not only recognize the fungus, but also know that household pets are the source of origin and so are able to control the outbreak, but in epidermophytosis much evidence yet remains to be collected.

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**The Pork Barrel in the Offing**—"In the State of New York," points out the Columbus Dispatch editorially, "it has been proposed to subsidize physicians in rural communities where modern conditions are alleged to have left the people without adequate medical aid. A committee of five physicians, appointed to investigate and report on the situation, has reported to Governor Smith that matters are not nearly so bad as a superficial consideration would suggest.

"In districts where a less number of physicians are now in practice, it is found that in many cases there has been a decrease in population also, so that the numerical ratio has not been seriously altered. Still further, the prevalence of disease is less than in former times, and with the aid of the automobile and improved roads, the physician can care for a larger number of patients than before.

"The committee therefore advises against any subsidy plan as unnecessary, and alleges that in Pennsylvania, where such a system has been tried, it has failed to do any good from the medical point of view, and the distribution of the subsidy has degenerated into a matter of 'pork barrel' politics."—From report of Committee on Medical Economics, Ohio State Medical Journal, May, 1923.

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